Sleep Education - Obstructive Sleep Apnea (OSA)

More than 18 million Americans suffer from sleep apnea. It affects all age groups and both sexes, but is most common in middle aged men. It’s also commonly seen in the elderly, but it’s potentially less concerning in this population. There are a number of risk factors that can increase the chance of suffering from sleep apnea. Some risk factors include having a small upper airway, having abnormally large throat structures, being overweight, having a small recessed chin, small jaw, large overbite or large neck size. Smoking and alcohol use can increase the risk. Sleep apnea tends to run in families, which may indicate a genetic component.

Obstructive Sleep Apnea is a condition in which you stop breathing briefly and repeatedly while sleeping at night. OSA has a host of possible signs and symptoms. Listed below are a few of the most common sleep apnea symptoms.

Sleep Apnea Symptoms

During the night, you may experience frequent awakenings. The cessations in breathing can lead the body to recognize a lack of oxygen and will trigger you to awaken. Other symptoms can include:

- Wake up gasping for air | Chronic issue with snoring | Feeling tired after a full night's sleep
- Finding it hard to stay awake at work, while driving or while on the phone

How Is Obstructive Sleep Apnea Treated?

Sleep apnea is most commonly treated by Continuous Positive Airway Pressure (CPAP).

CPAP is a highly effective treatment when used in the correct manner. The CPAP should be used all night and every night in order to be an effective treatment.
During the day, sufferers may experience:

- Headaches - especially in morning | Excessive sleepiness | Memory & concentration issues | Crankiness | Depression | Short temper

Long-term symptoms can include:

- High blood pressure | Heart attack or heart failure | Cardiac arrhythmia | Stroke | Sexual dysfunction

Children with Obstructive Sleep Apnea may snore loudly, have pauses in breath, gasp, and snort during sleep. They may be restless during sleep or sleep with their head in an abnormal position. During the day, they may complain of frequent headaches especially in the morning. They may also exhibit a nasal speaking voice and breathe regularly through the mouth.

There are several possible causes for sleep apnea; all causes result in blockage of the sufferer's airway path. Sometimes this blockage occurs in the mouth/throat. This might be due to abnormally large throat structures (i.e. tongue, tonsils, and uvula). Or the throat muscles that normally hold these structures in place (i.e. soft palate, uvula, tonsils, and back of the tongue) relax too much during sleep and allow the structures to shift in such a way to block the airway. A receding small jaw may cause the tongue to sit too far back in the throat which can lead to blockage of the airway. Sometimes the blockage is in the structures of the nose. The nose septum divides the left and right sides of the nose. The turbinates are ridges located in the nasal passages. The septum may be deviated (crooked) or the turbinates may be swollen, both of which might block the air passageways.

Lifestyle Changes

Lifestyle changes can also be highly effective in alleviating the symptoms of sleep apnea.

Being overweight, for example, can increase the risk and severity of your sleep apnea case. An overweight patient may even cure their sleep apnea by slimming down.

A CPAP, while an effective treatment, is not a cure.

Obstructive Sleep Apnea Diagnosis and Treatment

**Diagnosis** - A detailed history can be instrumental in diagnosing OSA. Before your appointment, take a moment to reflect on your sleep patterns:

- Bedtime and time to rise | Length of sleep | Frequent awakenings
- Overall sleep environment | Regular routine before going to bed | History of snoring

Note any current medications, previous and current medical conditions, and any recent weight gain. Ask your bed partner if they have noticed any of the following during your sleep: heavy snoring, choking, gasping for air, or cessation in breathing.

A physical exam of the throat, nose and mouth should be conducted by a trained physician to detect any structural causes of OSA. While history and physical exam are important, a sleep study is often needed to definitively diagnose OSA. This test will also provide pertinent information on the severity of the case. During a sleep study, certain physiological processes will be monitored to detect abnormalities. Some of these processes include heart rate, oxygen levels, muscle activity, respiratory effort, eye movement, sleep state, and airflow. The raw data from a sleep study will be evaluated by the sleep physician and the results and subsequent plan of care will be explained to you.
Treatment - Sleep apnea is treated most commonly by Continuous Positive Airway Pressure (CPAP). The CPAP is a pump which gently blows air into the patient’s airway to help keep it open. The CPAP has a mask which fits over the patient’s nose/mouth. It’s a highly effective treatment when used in the correct manner. The CPAP should be used all night and every night in order to be an effective treatment. It may take time to become accustomed to using a CPAP.

Another possible treatment is the use of dental appliances, such as an oral mandibular device. The device moves the lower jaw forward in order to help open up the airway. Throat surgery may be performed to remove excess tissue that is blocking the airway. Nose and jaw surgery may also be considered as possible options. Generally, these methods of treatment are most effective in cases of mild OSA and heavy snoring.

Lifestyle changes are also highly effective in alleviating the symptoms of sleep apnea. Following are some of the most common things a patient can do:

- Lose weight. Being overweight can increase the risk and severity of sleep apnea. An overweight patient may even cure their sleep apnea symptoms by slimming down.
- Avoid alcohol. Alcohol can cause frequent awakenings and can cause the upper airway muscles to relax.
- Quit smoking. Smokers suffer a higher severity of throat swelling which will make apnea and snoring worse.
- Treat allergies. Allergies or sinus issues may hinder your ability to breathe.
- Sleep on your side. Some patients find that the symptoms of sleep apnea are less severe if they sleep on their side.
- Avoid certain medications. Sedatives, sleeping pills, and some antihistamines may relax the throat muscles and increase the severity of sleep apnea.